

WHAT IS CLAIMED IS:

1. A melt-blown, non-woven fabric produced from polyarylene sulfide having a non-Newtonian coefficient of 1.05-1.20.
2. The melt-blown, non-woven fabric according to claim 1, wherein said polyarylene sulfide has a branched structure.
3. The melt-blown, non-woven fabric according to claim 1, wherein said polyarylene sulfide is cross-linked.
4. The melt-blown, non-woven fabric according to claim 2, wherein said polyarylene sulfide is cross-linked.
5. The melt-blown, non-woven fabric according to claim 1, wherein polyarylene sulfide fibers constituting said melt-blown, non-woven fabric have an average fiber diameter of 10  $\mu\text{m}$  or less.
6. The melt-blown, non-woven fabric according to claim 2, wherein said polyarylene sulfide is a reaction product of an alkaline metal sulfide, a dihaloaromatic compound and a polyhaloaromatic compound having 3 or more halogen substituents in one molecule.
7. The melt-blown, non-woven fabric according to claim 6, wherein 0.001-0.6 mol %, based on 100 mol % of said alkaline metal sulfide, of said polyhaloaromatic compound is added in the reaction.
8. The melt-blown, non-woven fabric according to claim 3, wherein said polyarylene sulfide is subjected to a thermal oxidation cross-linking treatment.
9. The melt-blown, non-woven fabric according to claim 4, wherein said polyarylene sulfide is subjected to a thermal oxidation cross-linking treatment.

10. The melt-blown, non-woven fabric according to claim 8, wherein said thermal oxidation cross-linking treatment is carried out at 160-260°C for 1-120 hours.

11. A method for producing a melt-blown, non-woven fabric

5 constituted by polyarylene sulfide fibers, comprising the steps of:

(a) melt-kneading polyarylene sulfide having a non-Newtonian coefficient of 1.05-1.20;

10 (b) extruding the melt-kneaded polyarylene sulfide through nozzles at 300-360°C and drawing the resultant polyarylene sulfide extrudate with a hot gas stream at 300-360°C to form extremely fine polyarylene sulfide fibers having an average fiber diameter of 10 μm or less; and

(c) depositing said extremely fine polyarylene sulfide fibers on a collector.

12. The method for producing a melt-blown, non-woven fabric  
15 according to claim 11, wherein said polyarylene sulfide is synthesized by a reaction of an alkaline metal sulfide, a dihaloaromatic compound and a polyhaloaromatic compound having 3 or more halogen substituents in one molecule.

13. The method for producing a melt-blown, non-woven fabric  
20 according to claim 12, wherein 0.001-0.6 mol %, based on 100 mol % of said alkaline metal sulfide, of said polyhaloaromatic compound is added in said reaction.

14. The method for producing a melt-blown, non-woven fabric  
according to claim 11, wherein said polyarylene sulfide is subjected to a  
25 thermal oxidation cross-linking treatment before melt-kneading.

15. The method for producing a melt-blown, non-woven fabric according to claim 12, wherein said polyarylene sulfide is subjected to a thermal oxidation cross-linking treatment before melt-kneading.

16. The method for producing a melt-blown, non-woven fabric  
5 according to claim 14, wherein said thermal oxidation cross-linking treatment is carried out at 160-260°C for 1-120 hours.

17. The method for producing a melt-blown, non-woven fabric according to claim 15, wherein said thermal oxidation cross-linking treatment is carried out at 160-260°C for 1-120 hours.

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